

The Effects of Low Credible Sources on Message Acceptance:

Four Experimental Studies in Persuasion

by

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Chapter I

INTRODUCTION

General Background

The studies reported below deal with the general problem of source credibility; however, primary focus is directed at the effects of communication sources of relatively low credibility. The investigators examined the following general questions: (1) How effective are communication sources of relatively low credibility? For example, when compared to messages from highly credible or unidentified sources, what, if any, impact does a message presented by a low credible source have on audience attitudes? (2) Can the effectiveness of a low credible source be enhanced by manipulating other communication variables? More specifically, given a low credible source, will variations in the point in time at which the source is linked to the message result in different audience attitudes toward the message topic? This second question reflects the investigators' assumption that source and message variables cannot be viewed separately; rather, these two factors function conjunctively to influence the overall impact of any communication. Although this assumption increases the complexity of assessing the effects of civil defense messages, it does greater justice to the complicated decisions that must be made regarding OCD communications.

Since it has been demonstrated repeatedly that highly credible sources are the most effective communicators, the investigators' reasons for studying communication situations involving low credible sources should be clearly articulated. First, in any public information program involving a large heterogeneous audience (i.e., a program similar to that conducted by OCD), one will usually find a segment of the audience who perceives a particular

source as relatively low in credibility. If linkage of the message with that particular source is mandatory, it is useful to determine whether the deleterious effects of low credibility may be minimized. Second, it may sometimes be impossible to obtain a reliable indication of a source's credibility; in other words, message decisions may, of necessity, be based upon "educated guesses" about the relative credibility of a given communicator. In such situations, the present findings should assist the communication agency decision-maker in planning for a number of the situational contingencies associated with credibility. Third, the paucity of research dealing with low credible sources indicated that the findings of these studies will contribute to the general body of knowledge concerning the effects of source credibility. Because of these three considerations, the present studies may be justified both on the grounds of their practical utility for an ongoing public information campaign such as that conducted by OCD and on the basis of their value to the developing body of social science literature dealing with the communication process.

This report will proceed as follows: the remainder of Chapter I is devoted to a discussion of the general rationale underlying the studies and to a statement of the major hypotheses. Chapter II details the methods and procedures utilized, and the results obtained in each of the studies. Included in the chapter are a description of the measuring instruments employed in each study, an explanation of the methods used to operationalize the independent variables, a description of the subjects, and a summary of the statistical analyses. Chapter III discusses these results further, including consideration of their implications for OCD planning.

Rationale and Hypotheses

The general rationale underlying the major problem in this series of

studies is summarized by the following assumption: A message attributed to a low credible source before its presentation generates maximum resistance to the message; favorable attitude change among audience members exposed to the message will be minimal.

The bases for this assumption are to be found in the work of Lumsdaine and Janis (7) dealing with the concept of inoculation, and in the research of McGuire and Papageorgis (8) on the problem of belief immunization. These investigators have demonstrated that certain antecedent factors function to make an individual's beliefs more resistant to change; i.e., to reduce the effectiveness of a subsequent persuasive attempt. For example, Papageorgis and McGuire (10), have found that when a communicator mentions arguments that are contrary to an individual's beliefs and then explicitly refutes these arguments, that individual's beliefs are more resistant to change when later attacked. These investigators also have shown that this resistance is generalized to subsequent attacks even when the attacks involve counterarguments not originally refuted.

It seems reasonable to conceive of low source credibility as one possible antecedent condition that would serve to immunize an individual's beliefs and thus make him more resistant to persuasion. When prior to its presentation, a persuasive message is attributed to a low credible source, the audience is forewarned that the information which follows may be unreliable. This forewarning is likely to cause the audience to ignore the message's persuasive appeals and to retain their original attitudes toward the issue. Furthermore, assuming that these responses were originally learned in a situation in which a low credible source had proved to be unreliable, it is probable that they would be generalized to future communication situations in which the individual is forewarned that the message source is of low credi-

bility. As a result, minimal favorable attitude change would be expected when the audience is appraised of the low credibility of a source prior to message exposure.

By contrast, it should be possible to reduce the effects of low credibility by delaying attribution of the message to the source until after its presentation to the audience. This approach would eliminate any forewarning about the possible unreliability of the message source. It also would increase the probability that the message's persuasive appeals would be attended to more receptively. When given the opportunity to assimilate this message content, it is anticipated that audience members would be less influenced by the consequent attribution of the message to a low credible source. This would be especially true if the message appeals were of relatively high substantive and stylistic quality. Taken together, these considerations led to the following hypothesis:

- (1) When presented by a low credible source, attribution of the message to the source after its presentation will result in more favorable audience attitudes toward the message proposal than when the message is attributed to the source prior to its presentation.

A recent study by Husek (4) deals with a similar hypothesis. Using the problem of mental illness as a message topic, Husek employed a condition in which the communicator stated at the beginning of the talk that she was a former mental patient, a condition in which this information was divulged at the end of the speech, and a condition in which no information of this type was presented to the audience. He concluded that late presentation of this information about the speaker resulted in more positive attitudes toward mental illness phenomena than did early presentation. While no mention of source information was superior to early mention, individuals in the

late mention condition expressed more favorable attitudes toward mental illness than did individuals in the no mention condition.

Husek's findings are difficult to interpret, primarily because his study has several methodological shortcomings. The primary problem is that he presents no independent assessment of the source's credibility. The only data applicable to this question (semantic differential ratings of the concept "ex-mental patient") are treated as part of the dependent variable. They are combined with similar ratings of such diverse concepts as "psychotherapy," "neurotic people," and "mental hospital" to arrive at one summated dependent measure. As a result of the probable multi-dimensionality of this measure, it is impossible to ascertain just what was being rated by the subjects, and no empirical evidence of the source's low credibility is provided.

The present studies also examine three other dimensions of the general problem of the effectiveness of low credible sources. The first of these, also examined by Husek, concerns the relative effectiveness of a low credible source as opposed to an anonymous, or unidentified, source. Previous research by Greenberg and Tannenbaum (3) has demonstrated that a message attributed to a highly credible source results in greater attitude change than a message in which the source remains unidentified. One purpose of the present studies was to determine if the converse effect also holds; i.e., if a message attributed to a low credible source will result in less favorable attitudes toward the message topic than a message in which the source remains unidentified. It is argued that, regardless of the point in time at which the message is attributed to the source, the source's low credibility will result in detrimental audience effects. Thus, the following was investigated:

- (2) A message from an unidentified source will result in more favorable audience attitudes toward the message proposal than will a message attributed to a low credible source.

Another question of interest centers on the relative efficacy of messages presented by low credible sources as contrasted with no message exposure whatsoever. Do audiences exposed to messages presented by low credible sources express more favorable attitudes toward the message topic than do individuals experiencing no message exposure? Obviously, this question is a complex one, and its resolution is dependent upon a number of relevant source and message factors. Thus, depending upon the dynamics of the situation, it is possible to reason in at least three distinct lines: if the message is of sufficient quality to overcome the effects of low credibility, a message presented by a low credible source should prove superior to no message exposure; if credibility effects are more marked than message effects, a boomerang effect should occur, and the message presented by a low credible source should prove inferior to no message exposure; finally, if source and message effects are about equal, individuals exposed to the message attributed to a low credible source should not express significantly different attitudes toward the proposal than individuals who experience no message exposure. Since it was believed that the messages employed in the present studies were of sufficient quality to partially obviate the effects of induced low credibility, the following hypothesis was examined:

- (3) Audiences exposed to a persuasive message attributed to a low credible source will express more favorable attitudes toward the proposal advocated than will individuals who receive no message.

Finally, the present studies investigated the possible interaction between level of source credibility and immediate or delayed attribution of the message to the source. If, as suggested above, attribution of the message

to a low credible source prior to its presentation results in maximal audience resistance to persuasion, it seems reasonable that the opposite effect should be found for highly credible sources: that attribution of the message to the source before its presentation should enhance its persuasive effects. Audience members should believe that the information which follows is reliable and should subsequently respond more receptively to the message. As a result, an interaction between level of credibility and immediate or delayed source identification would be expected; specifically:

- (4) Immediate attribution of a message to a highly credible source will result in more favorable audience attitudes toward the proposal advocated than will delayed attribution to the same source, but delayed attribution of a message to a low credible source will result in more favorable audience attitudes toward the proposal advocated than will immediate attribution to that source.

Chapter II

METHOD AND RESULTS

Experiment I: The Effect of a Low Credible Source vs. an Unidentified Source

As mentioned above, earlier research on source effects has demonstrated that highly credible sources elicit more audience attitude change than do unidentified sources. The first experiment of the present series tested whether the use of a message attributed to a low credible source resulted in more favorable attitudes than a message attributed to an unidentified source. The rationale presented above predicts that a low credible source will increase resistance to persuasion; hence, as Hypothesis 3 stipulates, a message presented by an unidentified source is expected to be more persuasive.

Procedures

Subjects were 45 adult members of a parent-teacher organization in a small, semi-rural Michigan community. At a regularly scheduled meeting of the group, the principal investigators were introduced by the organization's president. Subjects were told that a project dealing with the "dissemination of scientific information" was being conducted; and that as a part of that project, they were to evaluate some scientific messages written for layman. Tickets were then distributed which randomly assigned subjects to one of two treatment groups. An experimenter accompanied each group to its respective room, and the test materials were immediately distributed.

For the Low Credibility group ($n=24$), these materials consisted of a cover sheet describing the task, a description of the message source which aimed at inducing low credibility, and the experimental message itself. For the Unidentified Source group ($n=21$), the materials were identical, except for the omission of the sheet describing the source.

All subjects were asked to read the message once, and to then return to the beginning of the message and underline all the main points in the message. This procedure was employed to insure attention to the message content. Fifteen minutes were allotted for the task. The message described the benefits of building public schools underground, thus providing protection in the case of nuclear war or natural disaster.

The credibility induction was based upon the following paragraph, included in the materials given to all subjects in the Low Credibility group:

For your information. The piece you are about to read was included in a sales brochure written and distributed in several American communities by a small group of men recently indicted for unethical business practices. The men traveled across the country trying to persuade school systems to build schools which could be used as fallout shelters. The salesmen would then offer to 'advisors' to the school board about this possibility. They charged a sizeable fee for their services, and made up some kind of report without doing any work.

As mentioned above, subjects in the Unidentified Source group did not read this paragraph.

At the end of the allotted 15 minutes, subjects were asked to evaluate the message in terms of its content, its style, and its clarity. Subjects were then asked to express their attitudes toward underground schools on a series of eight, Likert-type items with five response categories per item. These items were selected on the basis of a prior factor analysis which demonstrated their internal consistency and their high loading on the underground school issue(9).

Finally, all subjects rated the message source's perceived competence and trustworthiness. Subjects in the Unidentified Source condition also did this evaluation, even though they were given no information about the source. After all rating instruments were completed, the true purpose of the study was explained to the subjects.

In order to obtain a measure of audience attitude, the subjects' responses were summed across the eight items, yielding a range from 8 to 40. Also, the measures of credibility obtained for the Low Credibility and Unidentified Source conditions were compared, in order to determine the success of the credibility induction.

Results

The mean attitude score for subjects in the Unidentified Source condition was 27.1; while the mean score for subjects in the Low Credibility condition was 23.9. A high score is indicative of more favorable attitudes toward the construction of underground schools.

Since the data did not meet the assumption of normal distribution, the raw indices were converted to rank scores and analyzed by means of the Mann-Whitney U-test (11). The results of this analysis are found in Table 1. It is apparent that subjects in the Unidentified Source treatment expressed significantly more favorable attitudes toward the message topic than did subjects in the Low Credibility condition. In essence, then, having no source appended to the message proved more effective than using an unfavorably evaluated source.

Table 1

Mean Attitude Rank for Subjects
in Low Credibility and Unidentified Source*

Low Credible Source	Unidentified Source
20.15 (n=24)	26.26 (n=21)

*High mean rank indicates a more favorable attitude in direction advocated by message. The difference between the two means is significant at the .05 level ($U=183.5$, $z=1.56$, one-tailed test).

What is not apparent from the tabled data is the extent to which the source induction was successful. Subjects in the Unidentified Source condition were favorably inclined toward the source. Based on a maximum possible rating of seven, these subjects' mean rating of the source's trustworthiness was 5.1, while their mean rating on competence was 5.4. Although they received no information about the source, the quality of the message was apparently sufficient to create a somewhat favorable perception of the source. It would appear that these subjects reasoned that such a good message could only have come from a good source. This interpretation is supported by the fact that they rated the message quite positively, both in terms of content and style.

For subjects in the Low Credibility treatment, lower ratings were obtained on both source criteria. For trustworthiness, the mean rating was 4.4, while for competence, it was 4.7. These two means differ significantly from those obtained in the Unidentified Source group ($t=1.93$ and 1.70 respectively; $p < .05=1.68$, one-tailed test). Even so, the ratings of the source by subjects in the Low Credibility condition are at essentially the midpoint of the trustworthiness and qualification scales. Thus, although the study sought to investigate low credible sources, the induction did not result in extremely low credibility; instead, it is empirically more meaningful to speak of a source that is relatively less credible than the unidentified source. Despite the negatively valenced induction, one-third of the Low Credibility group subjects rated the source as "quite trustworthy." Such difficulty in establishing unfavorable source perceptions was encountered frequently in this series of studies. The investigators believe that attempts to induce perceptions of low credibility, while still maintaining situational crudity for the source-message combination, are offset by a normative response that

seeks positive source factors where, objectively, there are none. Had the credibility manipulation been more successful, it is probable that the differences in attitudes would have been even more extreme than those found in the present study.

Experiment II: The Effect of Immediate vs. Delayed Identification of a Low Credible Source

In this experiment, the investigators examined the effect of delaying knowledge of the identity of a low credible source until the message has been presented. It will be recalled that Hypothesis I stipulates that the effect of a message attributed to a low credible source will be enhanced by delaying identification of the source until after the completion of the message.

Procedure

Subjects were 71 undergraduates enrolled in beginning speech courses at Western Michigan University. At regular class meetings, subjects were told that a project was being conducted to test their aptitude in scientific areas, principally in the area of medical health.

Subjects were randomly assigned to two treatments. In both treatments, a test booklet was distributed. The booklet contained a cover sheet describing the pseudo-project, a background data sheet, a sheet attributing the message to a low credible source, the persuasive message, and a set of attitude items, including a subset dealing with the message topic. The two booklets were identical save that for the Immediate treatment (n=37) the sheet attributing the message to a low credible source immediately preceded the message, while for the Delayed treatment (n=34), this information immediately followed the message. In each class, half the students received one version; the other half the second.

The subject's task was identical to the first experiment: to underline

the key points in the message. Eight minutes were allotted for this task. The message dealt with the possible health hazards of constant tooth brushing, and several sections emphasized the superiority of proper diet, especially natural health foods, to tooth brushing as a means of preventing dental caries.

The credibility induction was based upon the following paragraph, given to subjects in both treatments in the two orders described above:

The article you will read (OR have just read) was written by the publicity director of a group which advocates natural foods as the means of maintaining proper health. It was written in the form of a publicity release designed to promote the sale and consumption of natural foods. The article is being used only because of its appropriateness for the assigned task. No endorsement is implied.

Three items were used to assess the subject's attitude toward the message topic; e.g., "Brushing one's teeth can become a harmful practice, if one does it too often." Response categories ranged from "definitely disagree" to "definitely agree," with 15 scale units between the extremes. Since responses to the three items were summed, a subject's attitude score could range from 3 to 45. Subjects also rated the message source on a seven-point scale ranging from "very good" to "very bad." After the experiment was completed, subjects were told that the message was a bogus one, and that they should give no credence to the arguments it contained.

Results

The mean attitude score for subjects in the Delayed condition was 19.3 while for subjects in the Immediate condition, it was 21.7. Since this case, the messages argue against, rather than for a proposal, a low score is indicative of a more favorable attitude toward the proposal advocated in the message.

Since the data again failed to satisfy the assumption of normal distribution, the attitude measures were converted into rank scores and analyzed by means of the Mann-Whitney U-test. Results of this analysis are contained in Table 2. The results indicate that significantly more favorable attitudes

toward the message topic were expressed by the group who received information about the source after reading the message. On the other hand, the attitudes of the group who received immediate information about the source are less favorable. Apparently, the message had already persuaded subjects in the Delayed-source group, and if the low credible source inhibited persuasion, it was less marked than in the Immediate group.

Table 2

Mean Attitude Rank for Subjects in
Immediate and Delayed Treatments*

<u>Immediate Source Identification</u>	<u>Delayed Source Identification</u>
32.73 (n=37)	39.56 (n=34)

*High mean rank indicates more favorable attitude in direction advocated by the message. The difference between the two means is significant at the .005 level ($U=406$, $z=2.57$, one-tailed test).

Again, it should be pointed out that the attempt to induce low credibility was only partially successful. Fourteen of the subjects in the Immediate treatment and 11 in the Delayed group rated the source "slightly," "quite," or "very good." Given that this variance in source perception could only have served to deter or limit the treatment differences, the significant difference between the treatments is all the more striking. It can be concluded that delay of information about the source of a persuasive message, when that source is likely to be perceived as having some unfavorable attributes, is more effective than immediate identification of the source.

Experiment III: The Effect of Immediate vs. Delayed Identification of a Low Credible Source: A Partial Replication

Given the positive results of the second experiment, the investigators next chose to replicate the test of Hypothesis 1. The replication was under-

taken to establish higher order generalizability across various message topics and for various types of audiences. In particular, interest was directed at an audience composed of individuals with some professional training in communication. Since, in terms of communication training, most prior research on source credibility has utilized essentially naive audiences, the investigators sought to determine if similar effects of those found in Experiment II could be obtained with a more sophisticated audience.

Procedures

Subjects were 95 sophomores and juniors enrolled in journalism editing classes at Michigan State University. At regular class meetings, subjects were told that a series of studies on the process of news editing was being conducted. They were then asked to edit a news story. Subjects received one of two versions of a test booklet: In one booklet, (Immediate treatment), the source was identified before the subjects read and edited the message. The other booklet contained no source information; rather, subjects in the Delayed treatment received their source information later in the test period. This procedure eliminated the possibility that subjects might have looked to the end of the message for source information, thus negating the function of the treatment. In addition to editing the message, subjects were also asked to underline the major points of the story. Fifteen minutes were allotted for the task. The message, which was identical to the one used in Experiment I, dealt with the benefits of constructing underground schools for use as shelters.

The credibility induction was based upon the following paragraph, given to subjects in both treatments:

The story you will edit (OR have just edited) was actually submitted to a Michigan daily newspaper for publication. It was written by a man who was new to the area, and had just opened an office as a 'business consultant.' He was also attempting to

borrow money to begin a construction company. The man was promoting the company as one which would build schools that could be used as fallout shelters. At the time he wrote the story, he was trying to interest the local school board in his own construction plans for a new school the board was planning. Then he offered to be an 'advisor' to the local school board about this possibility and, for a sizeable fee, analyze the local situation.

After 15 minutes, all subjects were given a second booklet. The booklet given to subjects in the Immediate condition contained the same set of eight, Likert-type items used to assess attitudes toward the message topic in Experiment I, and two items concerned with the credibility of the source. Subjects in the Delayed condition received the same rating instruments; but, in addition, the first page of their booklets contained the source description that subjects in the Immediate condition had read before editing the message. After subjects had completed the rating scales, they were told the true purpose of the experiment.

Results

In this study, the investigators confined their analysis to those subjects in each group who perceived the source as relatively low in credibility. For this purpose, the established criterion was that the source be rated at "slightly," "quite," or "very negative" on either trustworthiness or competence. Thirty-two percent of the subjects in the Immediate treatment and 37 percent in the Delayed group rated the source in these three categories.

The mean attitude score for subjects in the Delayed condition was 23.2, while the mean score for subjects in the Immediate condition was 18.6. In this case, a high score is indicative of a more favorable attitude toward the message topic.

Since the data were not normally distributed, the attitude indices were converted to rank scores and analyzed by means of the Mann-Whitney U-test.

The results of this analysis are found in Table 3. The findings provide further support for Hypothesis 1. Among a group of subjects who had received training in professional news communication, the location of information about the low credible source significantly affected attitudes toward the message topic. Specifically, attribution of the message to the source following its presentation resulted in more favorable attitudes than did prior source identification. This added evidence supports the notion of sensitivity to information about a low credible source, irrespective of the sophistication of the message receiver.

Table 3

Mean Attitude Rank for Subjects in Immediate and Delayed Treatments Among Trained Communicators*

<u>Immediate Source Identification</u>	<u>Delayed Source Identification</u>
12.96 (n=13)	19.63 (n=20)

*High mean rank indicates more favorable attitude in direction advocated by message. The difference between the two means is significant at the (.029) level ($U=77.5$, $z=1.90$, one-tailed test).

Experiment IV: The Effects of Immediate vs. Delayed Identification of High and Low Credible Sources

This final experiment had as its major purpose the investigation of a possible interaction between level of credibility and immediate or delayed attribution of the message to the source (Hypothesis 4 above). The rationale presented above suggests that immediate knowledge of unfavorable information about a source produces resistance to persuasion; while, in a parallel manner, knowledge of favorable information about a source predisposes an individual to respond favorably to the appeals contained in the subsequent message.

A second purpose of the study was to test Hypothesis 3, which stipulates that a message attributed to a low credible source will result in more favorable attitudes toward the message topics than those expressed by individuals who experience no message exposure whatsoever.

Procedures

Subjects were 86 members of parent-teacher organizations in two elementary schools in a southern Michigan community. At regular group meetings, held on the same evening at both schools, subjects were randomly assigned to one of five treatments: (1) High Credibility-Immediate Identification; (2) High Credibility-Delayed Identification; (3) Low Credibility-Immediate Identification; (4) Low Credibility-Delayed Identification; and, (5) a No Exposure control group. As in Experiment I, subjects were told that their task was to evaluate scientific messages intended for laymen.

In the four experimental treatments, subjects heard a contrived, tape recording interview between a station announcer and the source. The two discussed the under-ground school topic used in Experiments I and III, with the announcer asking questions and the source responding with the same arguments used in the written version of the message.

For subjects in the Immediate Identification groups, the credibility induction was presented at the beginning of the interview, while for those in the Delayed Identification treatments, the source identification came at its close. In the High Credibility groups, the announcer said:

Here for this discussion is (OR has been) Dr. Vincent Neller, professor of nuclear research, University of California, Berkeley, California. Dr. Neller is a nationally recognized expert on the biological and physical effects of nuclear fission and radioactivity. He has received numerous scientific awards for his basic research on this problem and has been an active member and officer in the National Academy of Science.

In the Low Credibility conditions, the announcer identified the source as follows:

Here for this discussion is (OR has been) Vincent Neller. Vincent, a sophomore at Central High, has written a term paper on fallout shelters for his social studies class. He is the son of Mr. John Neller, owner of a local construction company that has had several contracts with the Office of Civil Defense. Vincent's father is interested in building schools which can be used as fallout shelters in the event of an atomic attack. Originally we had asked Vincent's father to come and discuss the subject. However, he said that he was too rushed trying to draw up the details for his tender on some proposed schools. Since Vincent had recently written a term paper which dealt with the use of underground schools for fallout shelters, his father suggested that Vincent would fill in for him.

For the Delayed Identification groups, a realistic situation was developed by pretending to "break in" on an ongoing discussion. The tape began with a third voice stating:

The following discussion is an excerpt taken from a local radio program on public issues. The subject of this discussion is the building of schools which can be used as fallout shelters in the event of atomic attack.

Following this statement, subjects heard the announcer begin with the identical words used after the introduction of the source in the Immediate Identification treatments; i.e., "As we have already mentioned, you are concerned with . . .". Since the same taped message was employed in all four experimental conditions, presentation and message content were held constant for all subjects.

After listening to the taped message, subjects in the four experimental groups responded to the same eight, Likert-type attitude items used in Experiments I and III. Subjects in the No Exposure group completed these items without hearing a message.

Source credibility ratings were also obtained from the four experimental treatments. Each subject rated the source's competence on six, seven-interval scales (e.g., experienced-inexperienced, ignorant-expert), and his trustworthiness on six similar scales (e.g., just-unjust, open-minded-closed-minded). The scales were selected on the basis of factor

analytic research by Berlo and Lemert (2) which demonstrated that they loaded highly on these dimensions of credibility.

After subjects had completed all rating instruments, they were told the purpose of the experiment, and the investigators answered any questions that were raised.

Results

The data were first examined to determine whether the message originating from a Low Credible source resulted in more favorable attitudes toward the message topic than were expressed by individuals who experienced no message exposure. This was accomplished by combining the attitude scores for subjects in both Low Credibility treatments and comparing them with baseline attitude scores of subjects in the No Exposure group. This comparison resulted in a significant t of 2.65. As Table 4 indicates, this difference is consistent with Hypothesis 3; i.e., subjects in the Low Credibility conditions expressed more favorable attitudes toward the message topic than did subjects who were not exposed to a message. The mean for these latter subjects ($\bar{x}=20.3$) represents a neutral or slightly negative attitude toward the topic, while the mean for subjects in the Low Credibility conditions ($\bar{x}=25.7$) falls at a slightly favorable position. Thus, given a message of sufficient quality, exposure to a communication will have some impact on audience attitudes, even if that communication is attributed to a source of relatively low credibility. In the situation structured in this experiment, it would appear that message factors are more effective than source factors.

The data were next analyzed to test the major hypothesis of the experiment; i.e., the stipulated interaction between level of credibility and immediate or delayed source identification. For this purpose, only

those subjects for whom the source induction had been successful were utilized. Criteria developed from the ratings of source competence and trustworthiness required that subjects perceive the sources as either slightly negative (Low Credible) or slightly positive (High Credible) on both dimensions. Subjects who responded with neutral source ratings or with ambivalent, mixed ratings were not included in the analysis. Since the same criteria were used for subjects in all four experimental conditions, subsequent differences in attitudes cannot be viewed as an artifact stemming from the criteria employed.

Table 4

Mean Attitude Scores for Subjects in the
Low Credibility and No Exposure Treatments*

<u>Low Credibility</u>	<u>No Exposure</u>
25.7 (n=35)	20.3 (n=18)

*High score indicates more favorable attitude in the direction advocated by message.

Two-factor analysis of variance (5) was employed to test for the hypothesized interaction. The results of this analysis, summarized in Table 5, indicate a significant Credibility by Identification interaction. Examination of the treatment means indicates that the nature of this interaction is consistent with Hypothesis 4; i.e., if the source is perceived as highly credible, immediate identification results in more favorable attitudes toward the topic; while, if the source is of relatively low credibility, more favorable attitudes are expressed by those individuals for whom identification of the source is delayed until completion of the message. The first of these differences is small, but the second is similar in magnitude to those obtained in the earlier experiments.

Table 5

Mean Attitude Scores and Analysis of Variance Summary for
Subjects in the Group Experimental Treatments*

		<u>Source Identification</u>	
		Immediate	Delayed
<u>Source</u> <u>Credibility</u>	High	30.4	27.7
	Low	21.3	28.0

<u>Sources of Variance</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Identification	1	3	3	1	n.s.
Between Credibility	1	106	106	4.69	<.05
Credibility by Identification	1	109	109	4.82	<.05
Within	23	519	22.6		

*High attitude score indicates more favorable attitude in
direction advocated by message.

The significant Credibility effect observed in Table 5 reaffirms the superiority of high credible sources. No Identification effect is obtained; and, of course, none was expected, since the predicted interaction cancels differences between immediate and delayed source identification.

It is interesting to note that the Low Credibility-Delayed Identification message produces audience attitudes as favorable as those expressed by subjects exposed to the High Credibility-Delayed Identification message. This fact suggests that the effects of low credibility may be greatly minimized by late identification of the source. By contrast, the most favorable attitudes toward the message topic were expressed by subjects in the High Credibility-Immediate Identification group; while, in terms of audience attitudes, the Low Credibility-Immediate Identification message is clearly the least effective of the four communications.

Chapter III

SUMMARY AND DISCUSSION

This series of studies has provided experimental confirmation for the following hypotheses:

- (1) When presented by a low credible source, attribution of the message to the source after its presentation will result in more favorable audience attitudes toward the message proposal than when the message is attributed to the source prior to its presentation.
- (2) A message from an unidentified source will result in more favorable audience attitudes toward the message proposal than will a message attributed to a low credible source.
- (3) Audiences exposed to a persuasive message attributed to a low credible source will express more favorable attitudes toward the proposal advocated than will individuals who receive no message.
- (4) Immediate attribution of a message to a highly credible source will result in more favorable audience attitudes toward the proposal advocated than will delayed attribution to the same source, but delayed attribution of a message to a low credible source will result in more favorable audience attitudes toward the proposal advocated than will immediate attribution to that source.

Perhaps the most provocative result of the present studies is the thrice-replicated finding that the effects of low credibility can be largely obviated by delaying source identification until after the message has been presented. In each of the three experiments in which time of identification was manipulated, delayed identification of the low credible source enhanced the persuasiveness of the message. In the only experiment providing an opportunity to directly compare high and low credible sources (Experiment IV), delayed identification of a low credible source resulted in topic attitudes as favorable as those expressed by individuals who heard the same message presented by a high credible source for whom identification was also delayed. Delayed identification of the low credible source also resulted in attitudes

only slightly less favorable than those expressed by individuals in the High Credibility-Immediate Identification condition. By contrast, immediate identification of the low credible source was clearly the least effective of the four conditions.

This key finding is, of course, consistent with the rationale presented earlier in this report. Individuals who heard a message after its attribution to a low credible source seem to have been on their guard, to have been immunized against subsequent persuasive appeals. In instances involving low credible communicators, immediate identification appears to have served as a forewarning which alerted audience members to the fact that the message information might be unreliable. Given this forewarning, these individuals resisted the persuasive appeals in the message and were generally less receptive to the influence attempts of the source. On the other hand, delayed identification of the source afforded an opportunity for audience members to evaluate and to respond to the message appeals without the knowledge that these appeals were being presented by a source whose competence and trustworthiness were questionable. It seems probable, then, that persuasion had occurred before these individuals were apprised of the source's low credibility.

Not only are the attitude scores consistent with the preceding interpretation, but other aspects of the studies support this explanation in preference to alternative viewpoints. For example, it might be conceivable be argued that the quality of the message was sufficient to enhance the credibility of the source; i.e., to cause the source to be perceived as more highly credible than his objective characteristics would warrant. While it is true that such a message-source interaction probably existed, and that this interaction resulted in an overall elevation of the credibility of negative sources, it did not function differentially in conditions in-

volving immediate and delayed identification of the low credible communicators. Thus, subjects in the delayed conditions, although consistently expressing more favorable attitudes toward the message proposal, did not rate the source as significantly more competent or trustworthy than did subjects in the immediate identification conditions. Analysis of credibility data for each of the experiments shows similar mean ratings for competence and trustworthiness by all the subjects in the two conditions, and very similar percentages of subjects who rated the source on the negative side of the credibility continuum are found in immediate and delayed treatments. Therefore, even though subjects in the delayed conditions did not perceive the source as more highly credible, they did express more favorable attitudes toward the message proposal, thus supporting the position that persuasion had taken place before source information was introduced.

The conclusion that the effects of low credibility can be minimized by delayed identification of the source must be tempered by at least three qualifications. First, as was previously stressed, the messages used in these studies were relatively good, both in a substantive and stylistic sense. In all instances in which ratings were obtained from subjects, messages were evaluated quite positively, both in terms of their informational content and their clarity and style. As a result, the most defensible generalization emerging from the present studies can be stated as follows: Given a message of relatively high quality, delayed attribution of the message to a low credible source will result in more favorable attitudes toward the message topic than will immediate attribution. Thus, the investigators are willing to acknowledge that message quality may be a relevant variable which affects the generalization regarding source identification.

The theoretic rationale presented above, however, suggests that message

variability should be a significant factor only in those instances in which the message is of such poor quality that it has little, or no, persuasive impact. If more persuasion occurs in the delayed identification condition because the audience has not been forewarned and therefore attends more receptively to the message appeals, then any message possessing some persuasive elements should be more effective if linkage with a low credible source is delayed until after its presentation. If, on the other hand, the message is minimally effective, then it is doubtful that any strategy based upon manipulation of the identification of low credible sources will be sufficient to markedly affect persuasion. A future study in which both message quality and source credibility are systematically manipulated seems to be the most feasible method for assessing the relative impact of message and source on audience attitudes.

A second limiting factor of the present studies is the somewhat equivocal success of the low credibility manipulation. Even though audience members were given information that should have prompted them to question severely the competence and trustworthiness of the source, a number of them did not rate the source's credibility low in any absolute sense. While this reluctance to respond negatively may have been partially due to the quality of the message, the investigators believe that some additional variable is involved. Specifically, as mentioned earlier, there may be a normative standard operating which requires that audience members give a source the benefit of a doubt; i.e., that in the absence of personal experience with the source, they respond to the source in a somewhat positive manner. Again, had the credibility ratings been more positive in the delayed identification condition, it would be possible to argue for some kind of impression-formation interpretation; i.e., to hold that the positive

characteristics of the message had a greater impact on source perception than did subsequent information about the source's dubious motives and questionable competence. Such an interpretation would be consistent with previous research demonstrating the importance of primacy in impression-formation (1,6). To be sure, the sources in the delayed identification conditions were consistently rated somewhat more favorably than those in the immediate identification conditions, but these differences never achieved acceptable levels of statistical significance. Therefore, the lack of differences between credibility ratings for individuals in the immediate and delayed conditions militates somewhat against this explanation. Whatever the reasons for failure to induce absolute low credibility, it should be emphasized that more extreme negative source perceptions might serve to reduce the overall persuasive impact of the messages. Even so, although differences between the immediate and delayed conditions might be smaller, the theoretic rationale adopted in these studies implies that some advantage would be gained by late identification, even if the source's credibility was extremely low.

Finally, in respect to the immediate and delayed identification finding, the nature of the message topic should be considered as a third potential limiting factor. While greater generalizability was obtained in the present studies by replicating over two message topics, each of the topics employed represents a special condition in respect to the prior dispositions of audience members. The underground school topic is one with which many audience members were probably initially unfamiliar; therefore, these individuals' attitudes were probably less resistant to change than would be the case with more familiar issue. On the other hand, the tooth brushing message represents an attack on a cultural truism; i.e., a belief that almost all

members of a society share in common and which is seldom subject to attack. Prior research by McGuire (8) has shown that an unanticipated attack on such a belief usually results in considerable attitude change, primarily because the individual has never been cognitively prepared for such an event. It is possible, therefore, that messages which attack a strongly held, previously questioned attitude will be less persuasive, regardless of the point in time at which the negative source is identified. This is not to say, however, that delayed identification will not be more advantageous; rather, as in the case of the previous qualifications, it suggests that the advantage may be less marked.

That the credibility induction was sufficiently powerful to affect the persuasiveness of the message is confirmed by comparing the attitude scores for individuals exposed to a message presented by a low credible source with those of persons exposed to a message presented by an unidentified source. The fact that the latter group expressed significantly more favorable attitudes toward the message topic indicates that, when possible, it may be advantageous to eliminate source attribution from the communication situation, especially if the only alternative available is linkage of the message with a low credible source. This conclusion is, of course, limited by the practical exigencies of many communication environments, exigencies which frequently dictate that messages must be attributed to particular sources. Still, at least in the case of written communications, there is often an opportunity to eliminate specific references to the message source. This study suggests the desirability of such omission in cases where the source's credibility is likely to be perceived as relatively low, while a previous study by Greenberg and Tannenbaum (3) demonstrates the wisdom of early identification of the source in instances where he is

likely to have high credibility with the audience.

Even though low source credibility may almost always exercise some inhibitory effects on persuasion, the present studies indicate that exposure to a relatively good message presented by a low credible source is more efficacious than complete absence of message exposure. Given the ability to construct effective messages, the communication strategist is probably better advised to attempt to establish lines of communication with relevant audiences, rather than maintaining silence. Obviously, his attempts at persuasion will be more successful if these messages emanate from highly credible sources, but even in situations where the source's credibility is likely to be viewed somewhat negatively, a sound message should result in more favorable attitudes toward the proposal advocated.

Finally, these studies illustrate once again the conjunctive relationships between source and message variables, relationships which function to determine the outcome of any given communication event. The significant interaction obtained between level of credibility and immediate or delayed identification of the source indicates that no simple generalizations can be made regarding optimum source identification strategies. The success or failure of such strategies is dependent upon both relevant source and message variables, many of which still remain uninvestigated.

Implications for OCD Planning

On the basis of this series of studies, the following recommendations for OCD planning seem appropriate. While these recommendations are stated in an unqualified form, the limitations discussed in the report apply to each of them:

1. If the source's credibility is likely to be perceived as relatively high, then the message should be attributed to the source prior to its presentation, but if the source's credibility is likely to be perceived as relatively low,

or if one is uncertain about the level of credibility, attribution of the message to the source after its presentation is more efficacious.

2. If the option is available, a message emanating from an unidentified source will result in more favorable attitudes toward the proposal advocated than will a message emanating from a low credible source.
3. Given a relatively good message, a communication presented by a low credible source will result in more favorable attitudes toward the proposal advocated than will complete absence of message exposure.

This latter finding suggests that information campaigns which utilize sound messages are likely to exert some positive impact on public attitudes and information, even though some message sources may not be regarded as highly credible by some segments of the audience.

References

1. Anderson, N.H. and Barrios, A.A. Primacy effects in personality impression formation. J. Abnormal Soc. Psych., 1961, 63, 346-350.
2. Berlo, D.K. and Lemert, J.B. Dimensions of source credibility. OCD research report, Department of Communication, Michigan State University, June, 1964.
3. Greenberg, B S. and Tannenbaum, P.H. The effects of bylines on attitude change. Journ. Quarterly, 1961, 38, 535-537.
4. Husek, T.R. Persuasive impacts of early, late, or no mention of a negative source. J. Pers. Soc. Psych., 1965, 2, 125-128.
5. Lindquist, E.F. Design and analysis of experiments in psychology and education. Boston: Houghton Mifflin Co., 1953.
6. Luchins, A.S. Primacy-recency in impression formation. In Hovland, C.I. et al. The order of presentation in persuasion. New Haven: Yale University Press, 1957, pp. 33-61.
7. Lumsdaine, A.A. and Janis, I.L. Resistance to 'counterpropaganda' produced by one-sided and two-sided 'propaganda' presentations. POQ, 1953, 17, 311-318.
8. McGuire, W.J. and Papageorgis, D. The relative efficacy of various types of prior belief-defense in producing immunity to persuasion. J. Abnormal Soc. Psych., 1961, 62, 327-337.
9. Miller, G.R. and Hewgill, M.A. An experimental study of the relationships of fear appeals, source credibility, and attitude change. OCD research report, Department of Communication, Michigan State University, June, 1964.
10. Papageorgis, D. and McGruie, W.J. The generality of immunity of persuasion produced by pre-exposure to weakened counterarguments. J. Abnormal Soc. Psych., 1961, 62, 475-481.
11. Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill, 1956.

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13. ABSTRACT This series of studies provides evidence in support of the following propositions: (1) If a message is to be transmitted to an audience which perceives the message source as relatively low in credibility, the message will be more effective if the identification of the source is delayed until after exposure to the message. (2) Where the source of a message is likely to be perceived as relatively low in credibility, the message will be more effective without any identified source than with the low credible source. (3) A message will generally be effective in the intended manner, even with a source perceived as low credible, in comparison with no message at all. (4) When the source of the message is perceived by some audience as high in credibility, the message will be more effective if the source is identified before individuals are exposed to the message. These findings are confirmed in studies dealing with both civil defense topics (i.e., fallout shelters) and topics unrelated to civil defense.		

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